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The GPC & AMC MESA Program

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***The Georgia Perimeter College and
Atlanta Metropolitan College
MESA Programs***

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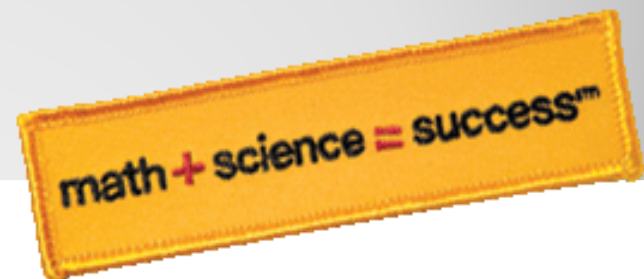
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**Georgia Scholarship of STEM
Teaching & Learning Conference
Georgia Southern University
March 09, 2012 | Statesboro, Georgia**

- The MESA program began in California
- The USG assumed management of Georgia MESA starting FY-2008
- Georgia MESA Pilot Program
 - Atlanta Metropolitan College
 - Georgia Perimeter College
 - Darton College
 - South Georgia College

MESA



PURPOSE OF MESA

- Prepares educationally disadvantaged students for four-year, math-based degrees
- Develops academic and leadership skills
- Focuses on historically underrepresented students in four-year and graduate level programs
- Assists students to bridge to four-year institutions
- Provides undergraduate research experiences



MESA COMPONENTS

- **MESA learning and implementation models**
 - MESA Center
 - Academic Excellence Workshops (AEW: Problem-Based Learning)
 - Leadership in Science and Research Training courses
 - Student activities:
 - University/Industry Tour
 - STEM Day
 - Professional etiquette training
 - Counseling sessions
 - Financial Incentives
 - Tutoring in STEM areas



Description of Components:

- **Recruitment**

- MESA-Brochures and Applications
- Visits to STEM classes and STEM Day events
- MESA Club participants
- Formal Interviews for MESA scholars
- Recruitment done Spring and Fall Semesters

- **Selection Criteria**

- Underrepresented minority STEM majors
- Academic Excellence Workshop attendance
- Registration in the Topics in Science Leadership and Research course



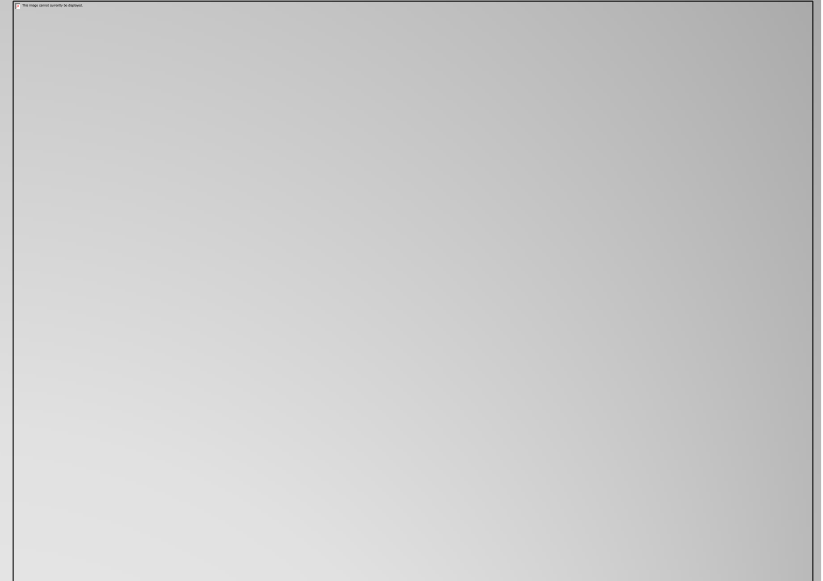
Enrichment Activities

- **MESA Center**
 - Dedicated to MESA activities
 - Studying and computing facilities
- **Advisement**
 - MESA Faculty Advisor
 - One hour group academic counseling
 - Must complete Degree Transfer worksheet
 - Portfolio containing Three Year Education and Career Plan

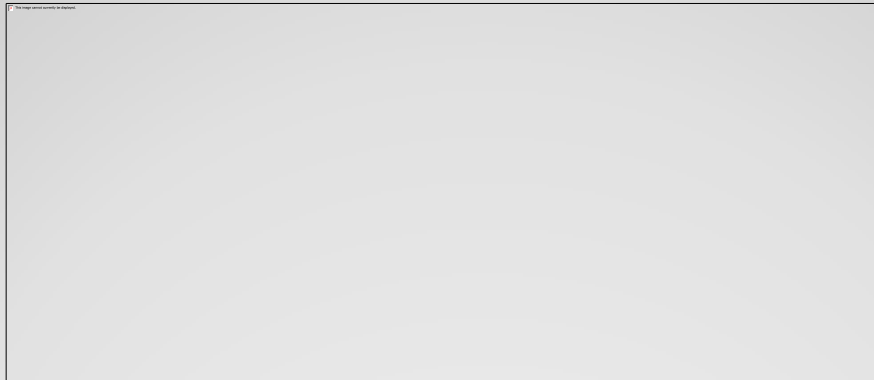


Research and Bridging

- Summer Internships
- Research Conferences
- Topics in Science
Research Paper and
Presentation
- Visits to STEM Related
Industries and Research
facilities (Government
and Universities)



GPC-MESA Results

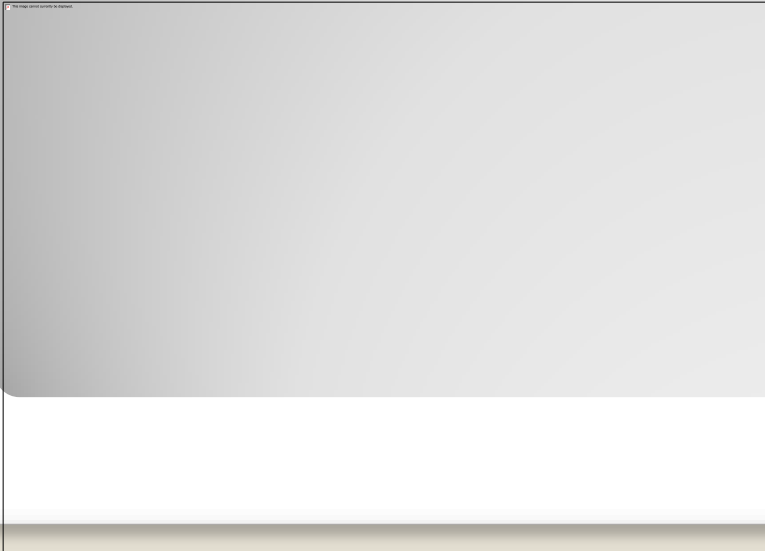


GPC MESA Students & Faculty

GPC MESA Students & Faculty

Spring2011

Academic Excellence Workshop



GPC MESA Scholars

	Summer	Fall	Spring	Total
FY-2008		49	55	70
FY-2009	35	96	115	142
FY-2010	32	79	53	110
FY-2011	24	69	71	95
FY-2012	28	77	85?	125?
TOTAL	119	370	379?	542?

GPC MESA Transfers

	Summer	Fall	Spring	Total
FY-2008	1	5	6	12
FY-2009	9	24	16	49
FY-2010	8	24	20	52
FY-2011	15	16	14	45
FY-2012	11	30	24	65
FY-2013	12?	32?	28?	72?
TOTAL	56	131	108	295





GPC-MESA Cumulative GPA

FY	2007*	2008	2009	2010	2011	2012
CGPA \geq 3.5	20.5%	30.0%	31.0%	25.5%	37.9%	?
3.0 \leq CGPA<3.5	31.8%	21.4%	22.5%	35.5%	28.4%	?
2.5 \leq CGPA<3.0	20.4%	25.7%	19.0%	18.2%	21.1%	?
2.0 \leq CGPA<2.5	9.1%	18.7%	20.4%	13.6%	9.5%	?
CGPA<2.0	18.2%	4.3%	7.1%	7.3%	3.2%	?

GPC-MESA STEM Grades

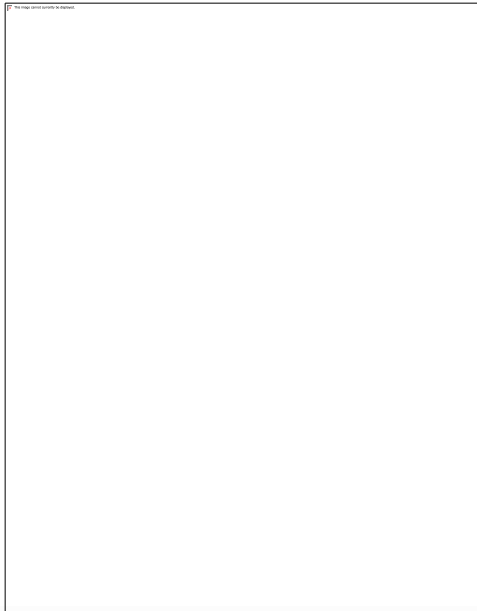
STEM Course	MESA #	MESA ABC	MESA ABC %	
Math-1111	14	10	71.4%	
Math-1113	20	19	95.0%	
Math-2431	35	20	74.3%	
Math-2432	17	11	64.7%	
Phys-1111	15	11	73.3%	
Phys-1112	1	1	100.0%	
Phys-2211	16	16	100.0%	
Phys-2212	20	18	90.0%	
Chem-1211	28	24	85.7%	
Chem-1212	20	20	100.0%	
TOTAL	186	156	83.9%	

Gainesville Mathematics Tournament

GPC: 1st Place Overall, 2010

MESA & Clarkston 2010 Team

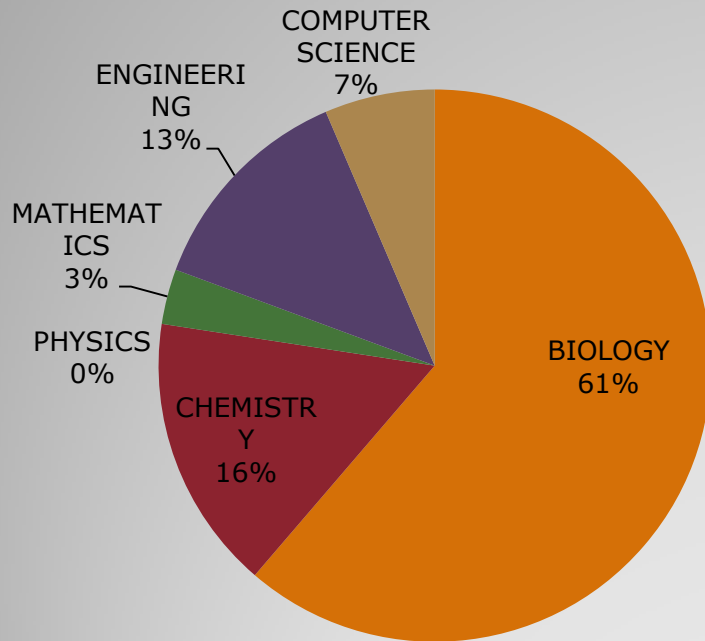
Outcomes at AMC MESA



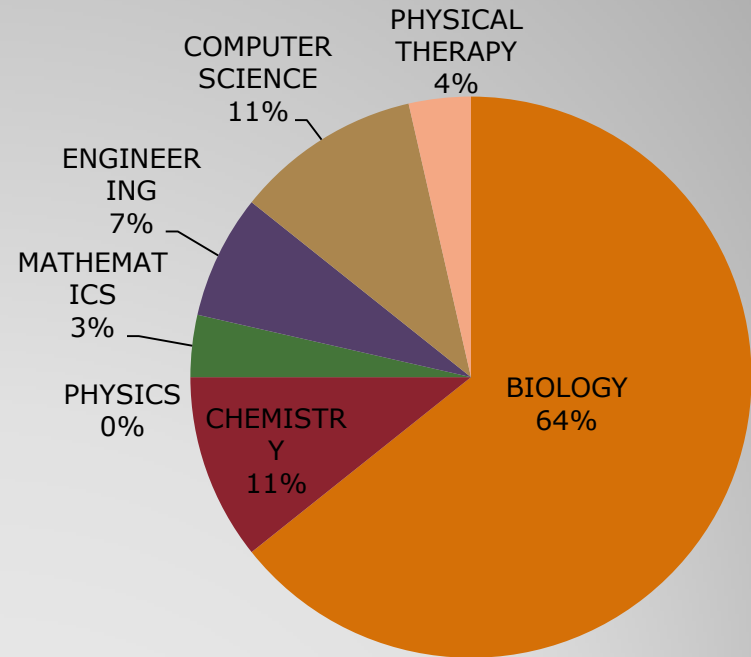




PERCENTAGE OF MESA STUDENTS IN STEM MAJORS IN 2009 - 2010



PERCENTAGE OF MESA STUDENTS IN STEM MAJORS IN 2008 - 2009



AMC-MESA STUDENT DEMOGRAPHICS - STEM MAJORS

Impact of MESA Program on Students

- Five AMC-MESA made poster presentation at the 88th Annual GAS Conference – March 25, 2011
- Two AMC-MESA Scholars made Research Presentations at the Summer 2008 Albany State University HBCU-UP Research Program
- MESA students have attended several workshops including the ***Minority Serving Institutions Research Partnership (MSIRP) Conference 2008*** and Workshops on Transfers to Four-Year Institutions 2009 - 2011

Impact of MESA Program on Students

- **Several AMC-MESA Scholars participated in summer internships at:**
 - Albany State University Summer 2008, 2009
 - Xavier/Tulane Research Program funded by ONR Summer 2009
 - GA Tech Focus Weekend Program Summer 2009
 - Morehouse School of Medicine Summer 2009
 - NASA & AMP, 2010
 - Study Abroad Experience at the University of Toronto in conjunction with the Ronald McNair Annual Conference 2010

AMC Students and Programs Successes

AMC-MESA RETENTION

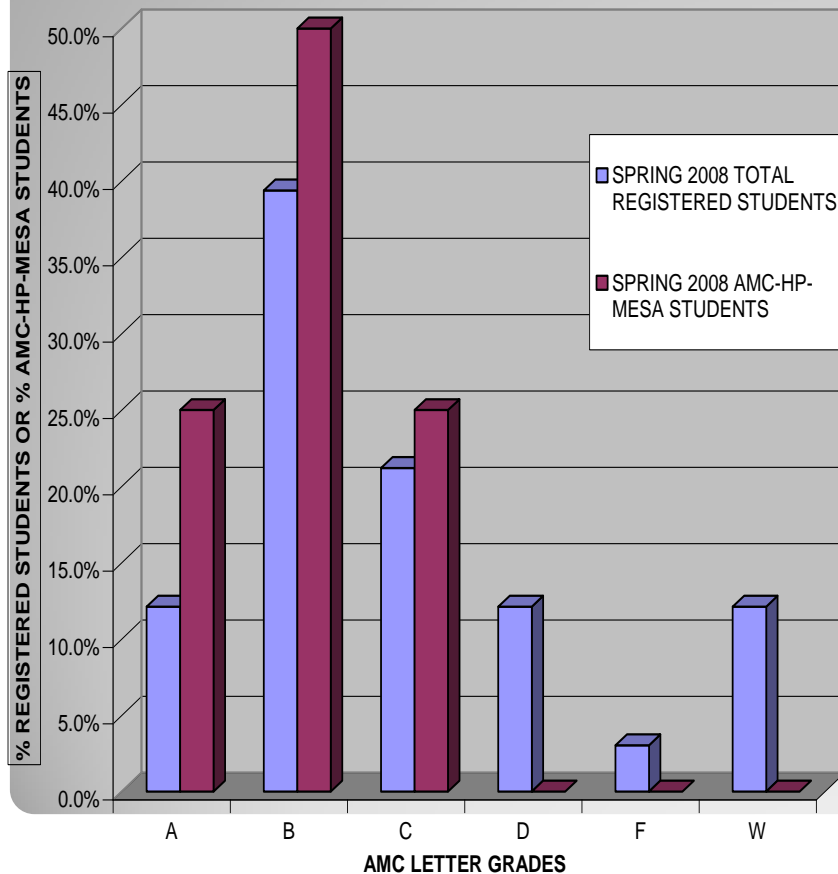
- 78.6% STEM student retention rate in 2009
- 64.5% continue to major in STEM fields at AMC today

TRANSFER TO HIGHER INSTITUTIONS

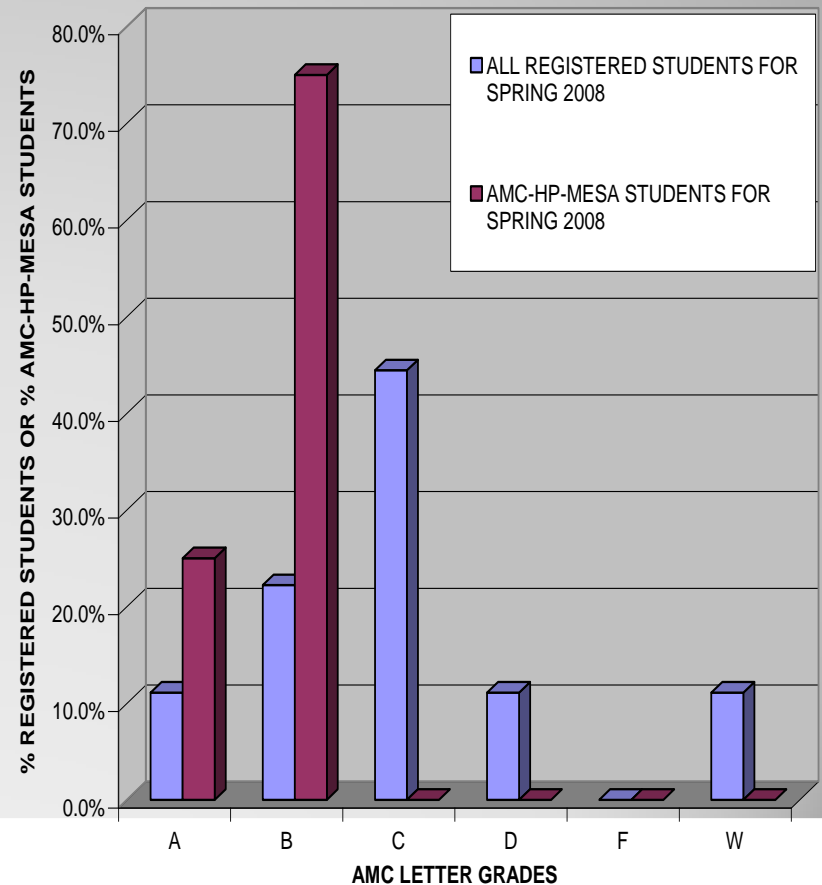
- 45% of the AMC-MESA Scholars have transferred to four-year institutions as STEM majors

AMC-MESA Success

GRADES IN GENERAL PHYSICS I PHYS 1111 FOR ALL REGISTERED STUDENTS COMPARED WITH AMC-HP-MESA STUDENTS FOR SPRING 2008



GRADES IN GENERAL PHYSICS II PHYS 1112 FOR ALL REGISTERED STUDENTS COMPARED WITH AMC-HP-MESA STUDENTS FOR SPRING 2008



MESA OTHER AREAS OF IMPACT



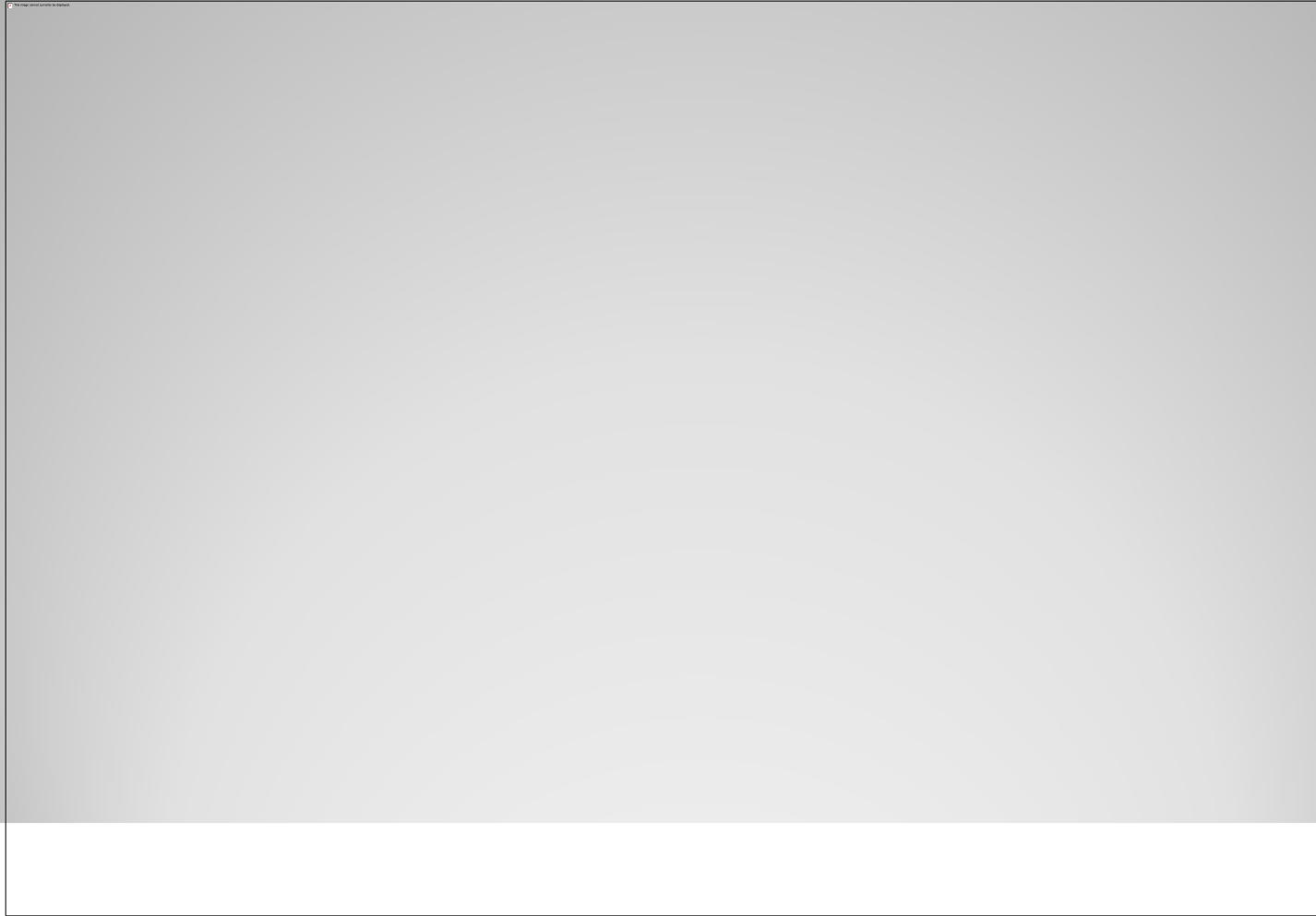
- AEW sessions
- MESA Leadership Conferences
- Minority Serving Institutions Research Partnership (MSIRP) Conference
- NASA Industry and University Tours
- MESA Scholars & MESA Club Mixer
- Annual MESA Luncheon/Dinner

HISTORY OF GEORGIA MESA Conference

- 2007: Darton College
- 2008: Tallahassee Community College
- 2009: Westin Atlanta Airport Hotel
- 2010: No Conference.
- 2011: GPC, Clarkston Campus
- 2012: GPC, Dunwoody Campus

2007 MESA Conference

Darton College



2009 MESA Conference

2012 MESA Conference Georgia Perimeter College



Challenges of the Programs

- Improve students' academic performance
- Increase the number of underrepresented minority STEM students transferring into senior colleges, universities and professional schools
- Continue to sustain and seek additional funding for MESA and other related programs at Georgia Institutions
- Partner with four-year institutions to help students meet transfer criteria and attain internship and research opportunities
- Build relationships with Community and Industry Leaders to facilitate internship and research opportunities

Next Steps

Issues

- Retaining “at-risk” STEM students
- Reducing withdrawal rates
- Increasing graduation and transfer rates to the four-year universities
- MESA Conference Business/ Corporation sponsors
- Expanding MESA to other GA institutions

Changes

- More rigorous recruitment and interview efforts
- More comprehensive advising procedure
- Program Improvement with increased funding to recruit more STEM students and provide activities that will promote greater academic achievements
- Greater coordination among GA MESA programs



Thank you from all the MESA Students!